

IN THE CLAIMS:

✓ Please cancel Claim 10, without prejudice to or disclaimer of the subject matter thereof, and amend the remaining claims as follows:

1. (Currently Amended) A control apparatus for a vehicle comprising:

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obstruction detection means including radar apparatus for measuring a headway distance ~~until~~ to an obstruction existing ahead of said vehicle ~~by means of a radar apparatus;~~

means for performing vehicle control or alarm control on the basis of said headway distance;

means for ~~detecting~~ judging a detection performance level of said obstruction detection means in a vehicle in which said obstruction detection means is used to perform two or more controls ~~containing~~ including said vehicle control or alarm control; and

means for ~~controlling to stop~~ individually enabling or interrupting operation of said vehicle control or said alarm control in accordance with said detection performance ~~individually~~.

2. (Currently Amended) A control apparatus for a vehicle according to Claim 1, further comprising means for notifying a vehicle driver of interruption of operation ~~an operation stopped state~~ of said vehicle control or said alarm control ~~to a driver~~.

3. (Currently Amended) A radar apparatus mounted in a vehicle, comprising:

obstruction detection means for detecting an obstruction existing ahead of said vehicle by means of said radar apparatus;

means for acquiring a speed of the vehicle;

means for identifying a moving body from said obstruction on the basis of said speed;

means of calculating an RCS value of said moving body;

means for statistically processing said RCS value; and

means for ~~detecting~~ judging a detection performance level of said obstruction detection means on the basis of a result of said statistical processing.

4. (Withdrawn)

5. (Currently Amended) A radar apparatus mounted in a vehicle, comprising:

cont. obstruction detection means for measuring a headway distance ~~until~~ to an obstruction existing ahead of said vehicle or a relative speed to the obstruction;

means for classifying detection performance of said obstruction detection means into ~~a plurality of~~ at least three different levels, and

means for outputting a signal indicative of said level of performance. ~~outside.~~

6. (Currently Amended) A vehicle ~~comprising:~~ having a control apparatus according to Claim 1, and further comprising:

means for acquiring a speed of said vehicle; and

~~obstruction detection means for measuring a headway distance until an obstruction existing ahead of said vehicle; and~~

communication means for ~~notifying~~ conveying information concerning a relation of said vehicle and said obstruction to a driver ~~on the basis of~~ based on at least one of said speed of said vehicle ~~and/or~~ and said measured

headway distance; wherein,

~~wherein~~ traveling control of said vehicle is performed on the basis of
at least one of said speed of said vehicle ~~and/or~~ and said measured headway
distance; and

~~said vehicle further comprising:~~

~~means for judging detection performance of said obstruction~~
~~detection means;~~

~~wherein~~ a method of by which said ~~notification by said notifying~~
~~means~~ communication means conveys information to said driver is changed on
the basis of said judged detection performance level.

7. (Currently Amended) A control apparatus of a vehicle according
to Claim 1, wherein:

a vehicle speed is acquired;

~~a headway distance until an obstruction existing ahead of said~~
~~vehicle is measured by means of obstruction detection means,~~

information concerning a relation of said vehicle and said

obstruction is ~~notified~~ communicated to a driver based on at least one ~~the basis~~
of said speed of said vehicle ~~and/or~~ and said measured headway distance; ~~and~~

traveling control of said vehicle is performed on the basis of said
speed of said vehicle and/or said measured headway distance; and ,

~~detection performance of said obstruction detection means is judged;~~
~~and~~

a method of said ~~notification~~ communication of said information to
the driver is changed based on ~~the basis of~~ said judged detection performance
level.

8. (Currently Amended) A vehicle according to Claim 6, further
comprising

means for canceling said traveling control of said vehicle based on
~~the basis of~~ said judged detection performance level.

9. (Original) A vehicle according to Claim 8, further comprising

means for notifying the driver that said traveling control of said
vehicle has been canceled.



10. (Canceled).

11. (Withdrawn)

12. (Withdrawn)

13. (Currently Amended) A vehicle according to Claim 6, wherein said means for judging a detection performance level of said obstruction detection means comprises:

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means for calculating an RCS value of said detected obstruction on the basis of said speed of said vehicle and comparing a value calculated on the basis of said RCS value with a predetermined value set previously to thereby judge detection performance of said obstruction detection means.

14. – 16. (Withdrawn)

17. (Currently Amended) A vehicle according to Claim 6, wherein said means for judging ~~the~~ a detection performance level of said obstruction detection means, ~~comprising:~~ comprises:

means for setting as an initial value at least one of a distance at which an obstruction approaching ~~to~~ said vehicle begins to be detected ~~and/or~~ and a distance at which an obstruction ~~going away~~ receding from said vehicle

begins to be missed when said obstruction detection means is normal;

means for calculating a current value of at least one of said distance at which said obstruction approaching ~~to~~ said vehicle begins to be detected ~~and/or a current value of~~ and said distance at which said obstruction ~~going away~~ receding from said vehicle begins to be missed; and

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Cred.* means for comparing said initial value with said current value to thereby judge the detection performance level of said obstruction detection means.

18. (Original) A vehicle control apparatus according to Claim 1, further comprising means for classifying said detection performance into a plurality of levels.

19. (Original) A control apparatus for a vehicle according to Claim 1, wherein said obstruction detection means is a millimeter-wave radar.
